FIG. 1

```
GmEXP1  MGK-IMLVLGSLIGLCCFTIT--TYA------FSPSGWTNAHATFYGGSD
NtEXP3  MAKCGILALGFIIGF--FSIFFNANA------FTASGWMRAHATFYGGAD
CsEXP2  MEK-LPFAFAFFLALSNFFFLF-VNA------FTASGWAPAHATFYGESD
AtEXP6  MA-----MLGLVLSVSVLTTILALSEARIPGVYNGGGWETAHATFYGGSD
PsEXP1  MA-----AI-LLLTIASLTSLFAPTTARIPGVYTGGPWTSAHATFYGGSD
        *       .   .   .                .  . *  ******* .*

GmEXP1  ASGTMGGACGYGNLYATGYGTRTAALSTALFNDGASCGQCYKIICDYKSD
NtEXP3  ASGTMGGACGYGNLYSTGYGTRSAALSTALFNSGGSCGQCYKIICDFYAE
CsEXP2  ASGTMGGACGYGNLYQTGYGTRTAALSTALFNDGASCGQCFKIICDYKTD
AtEXP6  ASGTMGGACGYGNLYSQGYGVNTAALSTALFNNGFSCGACFELKCA--SD
PsEXP1  ASGTMGGACGYGNLYSQGYGVNTAALSTALFNNGLSCGACFELKCD--QD
        ******* *******  ***  .********* * *** *. . *    .

GmEXP1  SRWCIKGR-SVTVTATNFCPPNFALPNNNGGWCNPPLKHFDMAQPAWEKI
NtEXP3  PRWCKKGV-SVTITATNFCPPNYALPSDNGGWCNPPRQHFDMAQPAWEKI
CsEXP2  PRWCIKGA-SVTITATNFCPPNYALPNNNGGWCNPPLKHFDMAQPAWQKI
AtEXP6  PKWCHSGSPSIFITATNFCPPNFAQPSDNGGWCNPPRPHFDLAMPMFLKI
PsEXP1  PRWCNPGNPSILITATNFCPPNFAEPSDNGGWCNPPRPHFDLAMPMFLKI
        ..**  *  *. .*********.* *..********  ***.* *   **

GmEXP1  GIYRGGIVPVLFQRVPCKKHGGVRFSVNGRDYFELVLISNVGGAGSIQSV
NtEXP3  GVYRGGIIPVFYQRVPCKKRGGVRFTINGRDYFELVLVSNVGGAGSVRSV
CsEXP2  GIYRGGIIPVLYQRVPCKKRGGVRFTVNGRDYFELVLITNVGGAGDIKSV
AtEXP6  AEYRAGIVPVSFRRVPCRKRGGIRFTINGFRYFNLVLVTNVAGAGNIVRL
PsEXP1  AQYRAGIVPVAYRRVPCRKAGGIRFTINGFRYFNLVLITNVAGAGDIVRV
        . **.**.** ..****.* **. * .**   *.***..**.***

GmEXP1  FIKGSKTG-WMAMSRNWGSNWQSNAYLNGQSLSFRVTTTDGETRVFQDIV
NtEXP3  QIKGSRT-NWMTMSNNWGANFQSNTYLNGQSLSFRVTTTDGVTKTFLNIV
CsEXP2  SIKGSKSSNWTPMSRNWGANWQSNSYLNGQSLSFKVTTSDGQVQVFNNVV
AtEXP6  GVKGTHTS-WMTMSRNWGQNWQSNSVLVGQSLSFRVTSSDRRSSTSWNIA
PsEXP1  SVKGTNTA-WMTMSRNWGQNWQSNAVFVGQALSFRVTGSDRRTSTSWNVA
           *. .  *  ** *** * ***. . **.***.** .*       ..

GmEXP1  PVSWTFGQTFSSPVQF-
NtEXP3  PANWRFGQTFSSPTQFS
CsEXP2  PSSWRFGQTFASKVQFS
AtEXP6  PANWKFGQTFMGKNFRV
PsEXP1  PPHWQFGQTFTGKNFRV
        *  * *****  .
```

FIG. 2

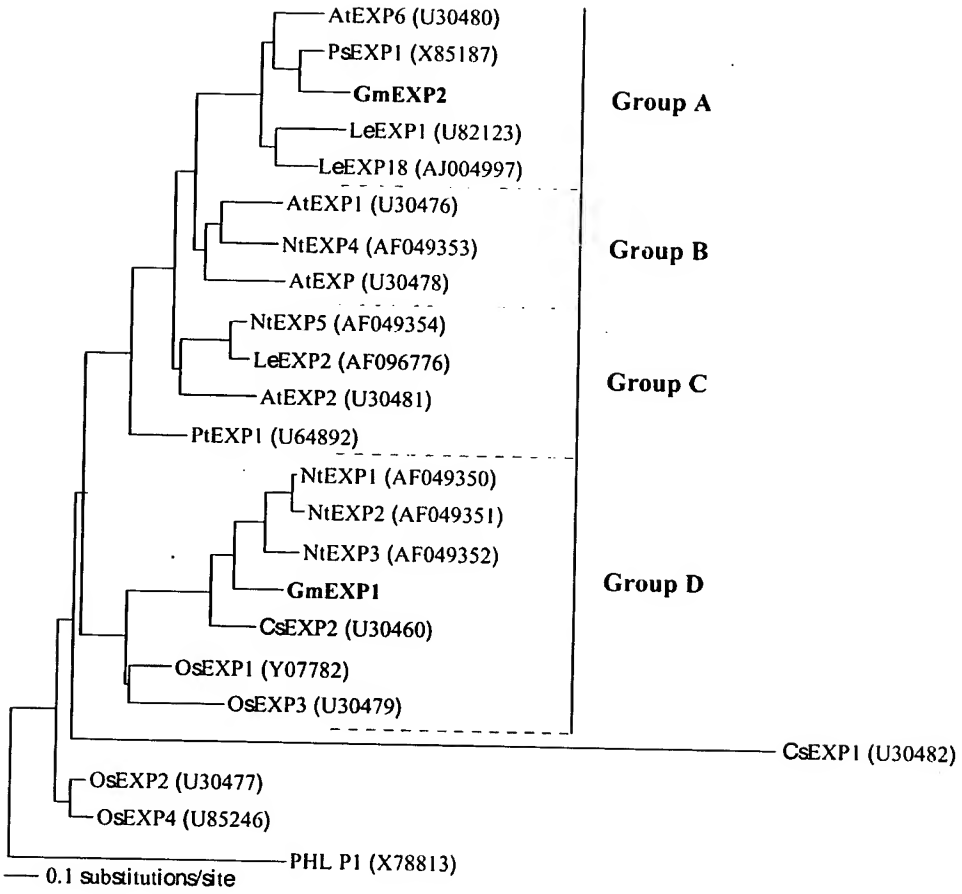
AtEXP6 (U30480)
PsEXP1 (X85187)
GmEXP2
LeEXP1 (U82123)
LeEXP18 (AJ004997)
AtEXP1 (U30476)
NtEXP4 (AF049353)
AtEXP (U30478)
NtEXP5 (AF049354)
LeEXP2 (AF096776)
AtEXP2 (U30481)
PtEXP1 (U64892)
NtEXP1 (AF049350)
NtEXP2 (AF049351)
NtEXP3 (AF049352)
GmEXP1
CsEXP2 (U30460)
OsEXP1 (Y07782)
OsEXP3 (U30479)
CsEXP1 (U30482)
OsEXP2 (U30477)
OsEXP4 (U85246)
PHL P1 (X78813)
0.1 substitutions/site
Group A
Group B
Group C
Group D

FIG. 3

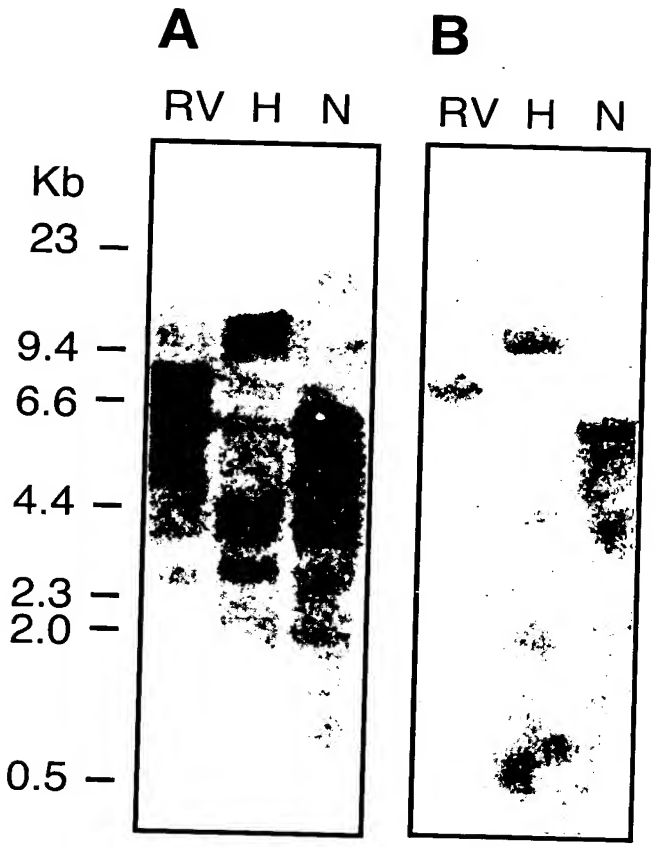

FIG. 4

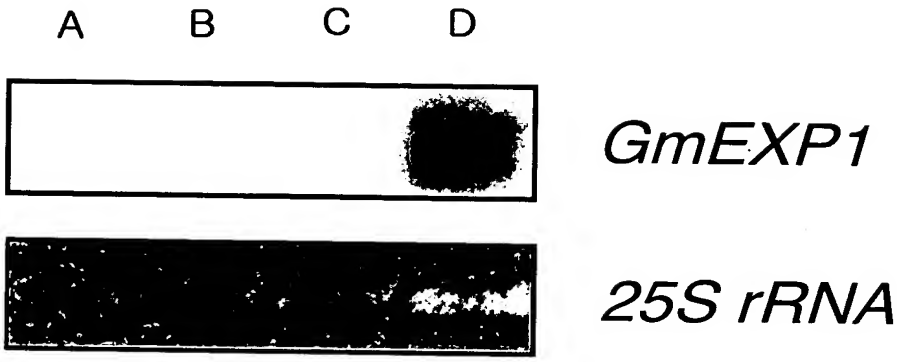

FIG. 5

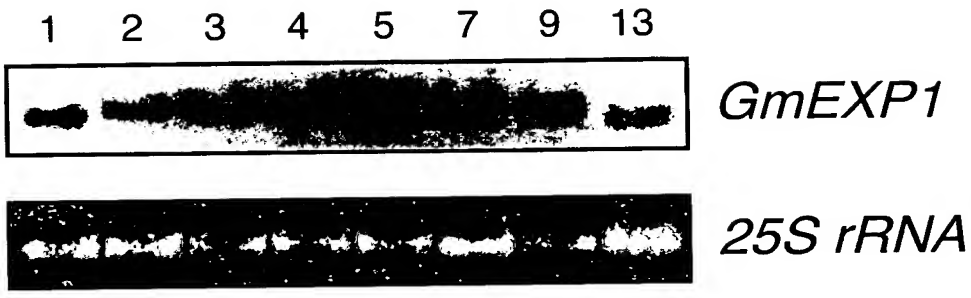

FIG. 6

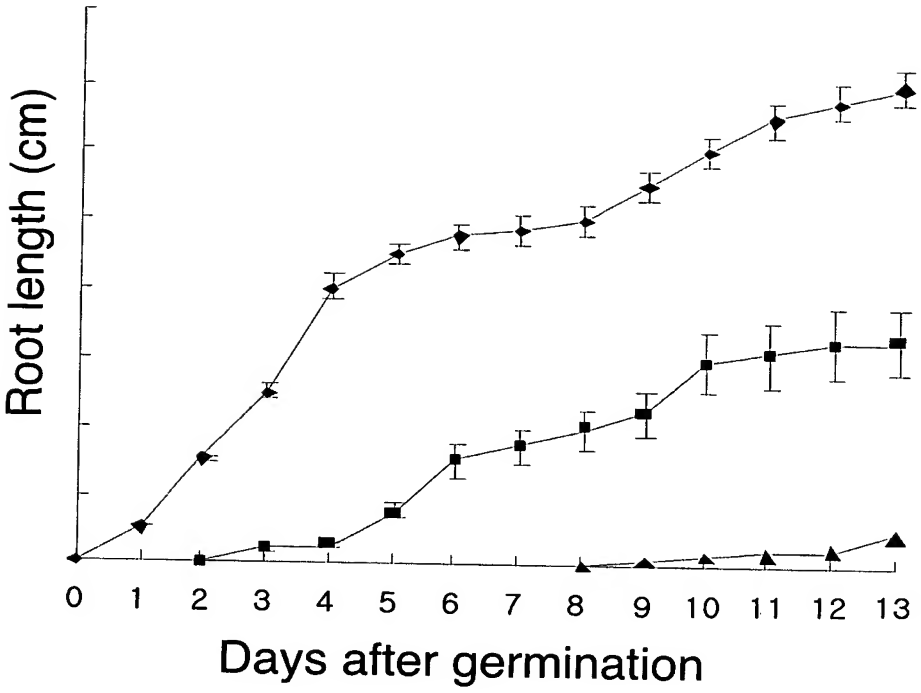
Root length (cm)
0
1
2
3
4
5
6
7
8
9
10
11
12
13
Days after germination

FIG. 7

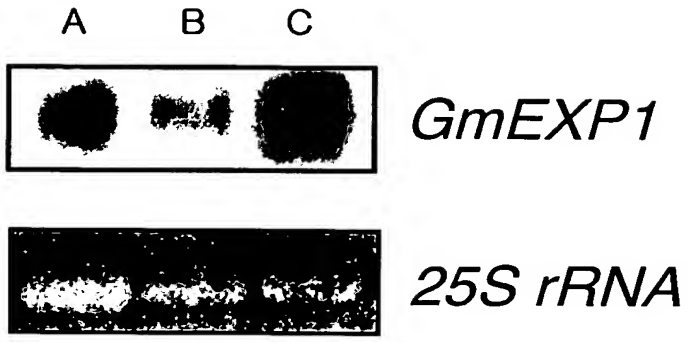

FIG. 8

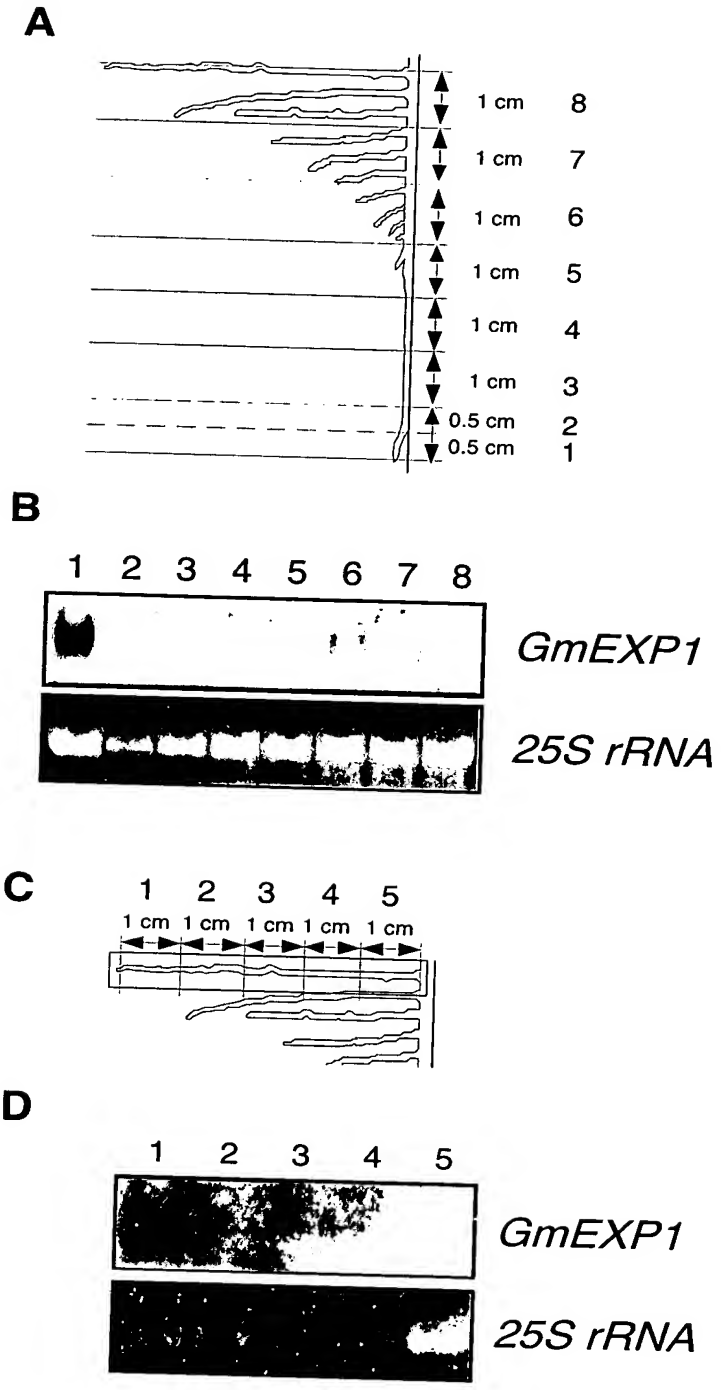
A
1 cm 8
1 cm 7
1 cm 6
1 cm 5
1 cm 4
1 cm 3
0.5 cm 2
0.5 cm 1
B
1 2 3 4 5 6 7 8
GmEXP1
25S rRNA
C
1 2 3 4 5
1 cm 1 cm 1 cm 1 cm 1 cm
D
1 2 3 4 5
GmEXP1
25S rRNA

FIG. 9

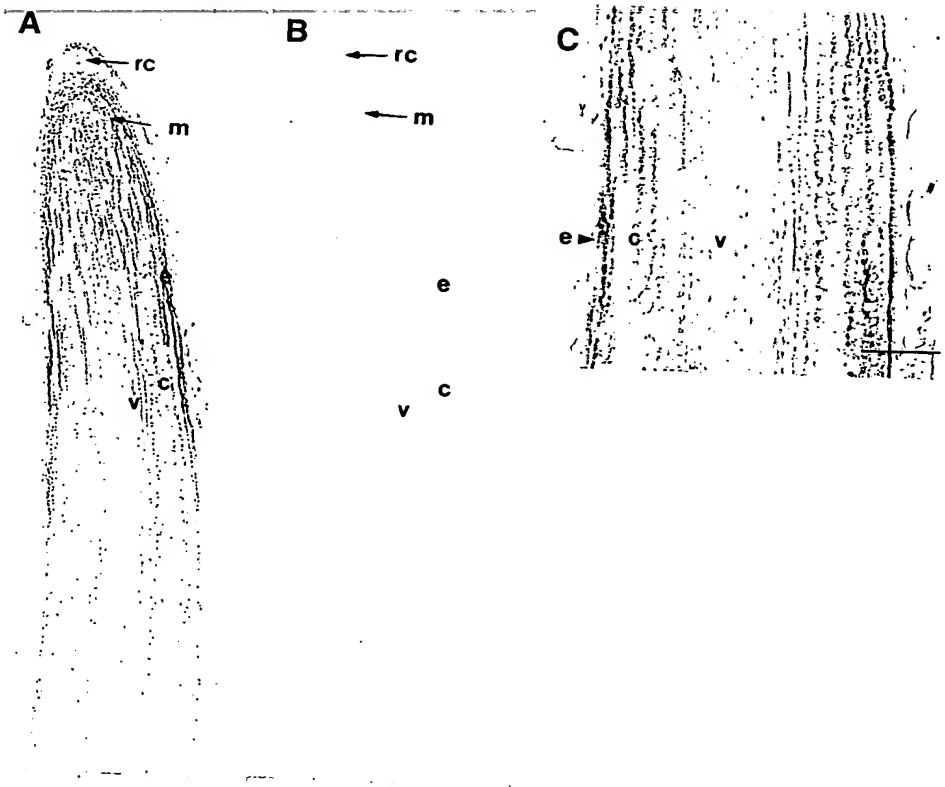

FIG. 10

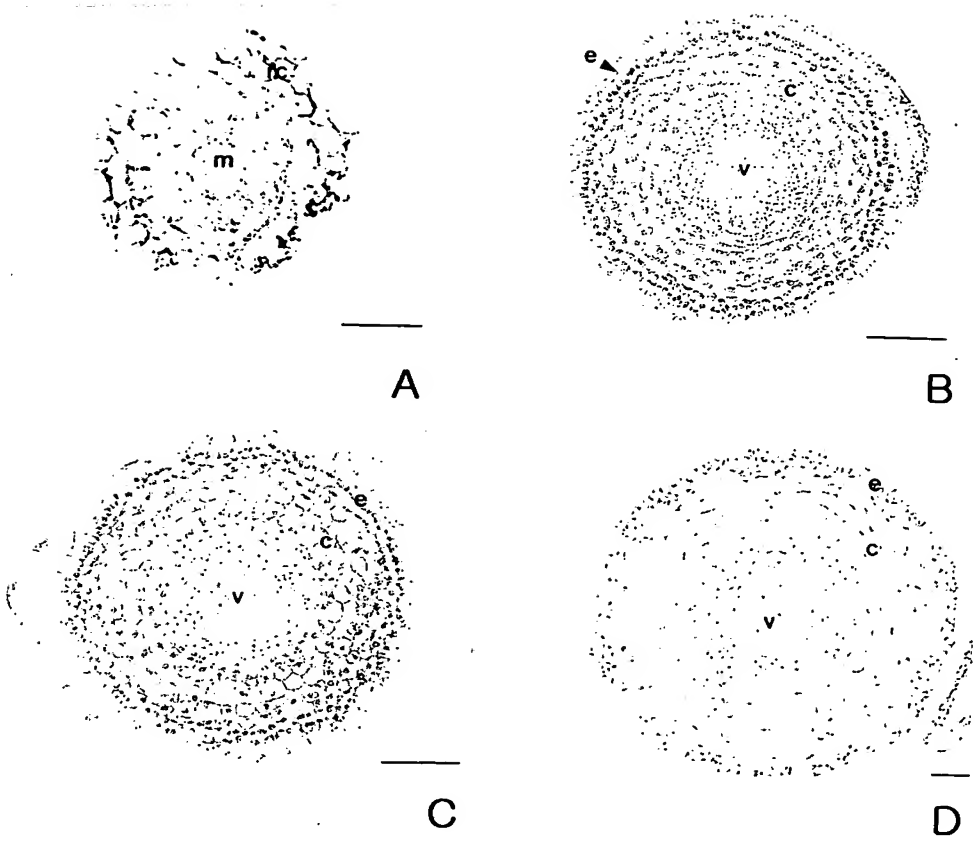

FIG. 11

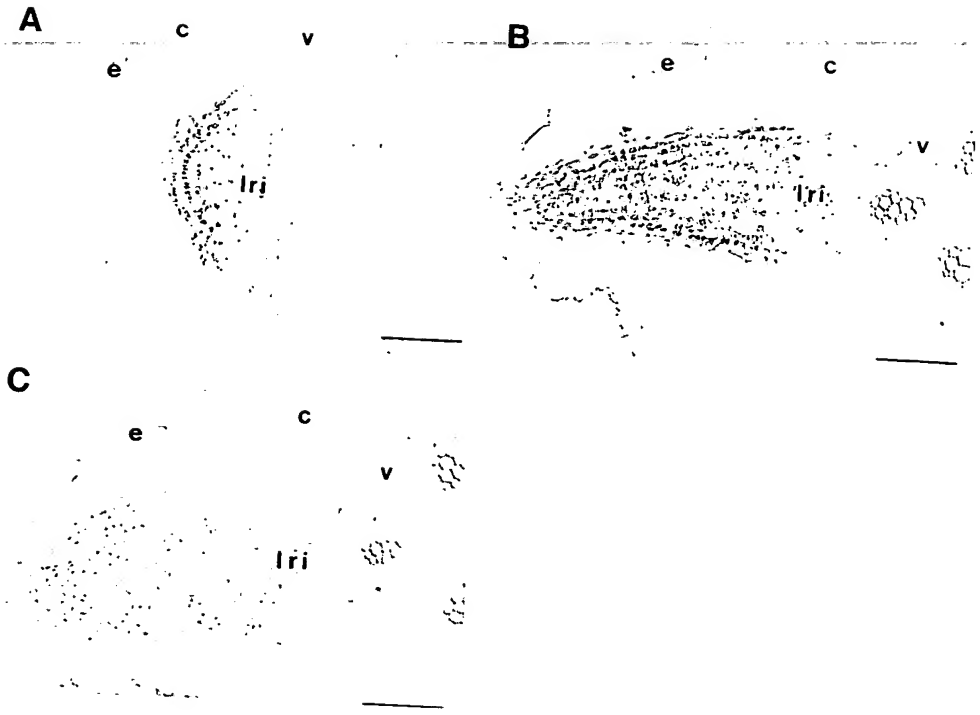

FIG. 12

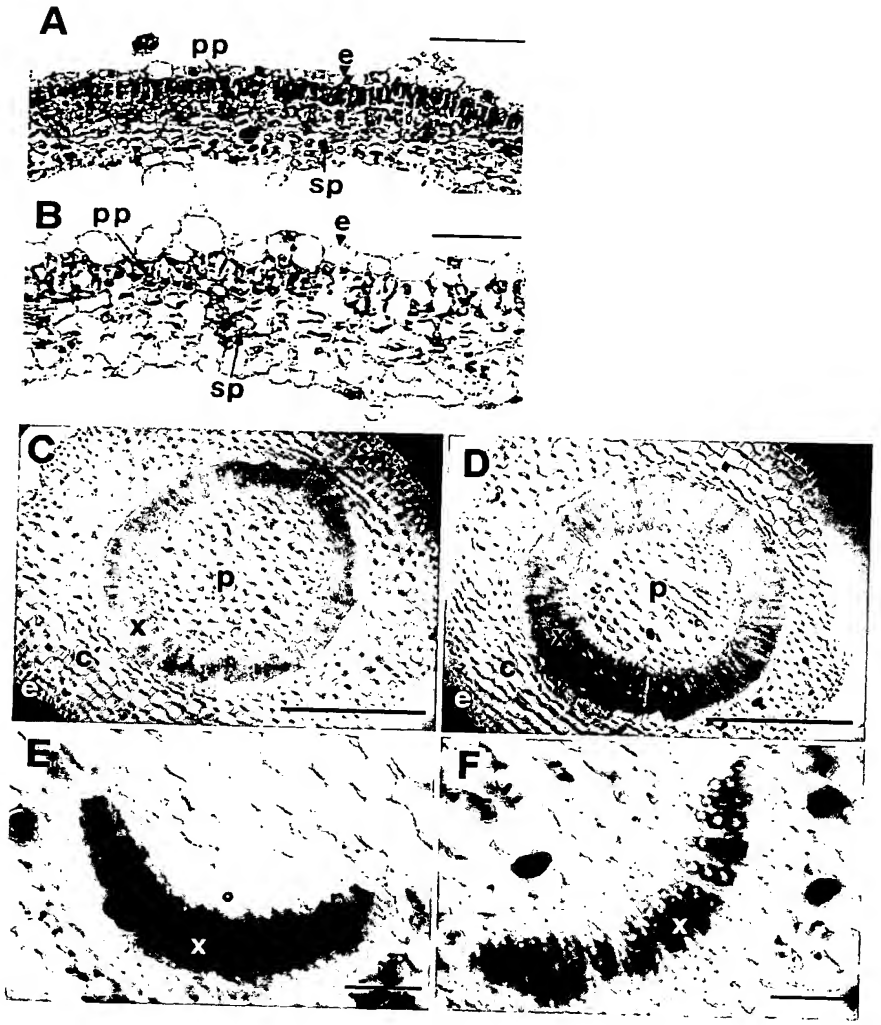

FIG. 13

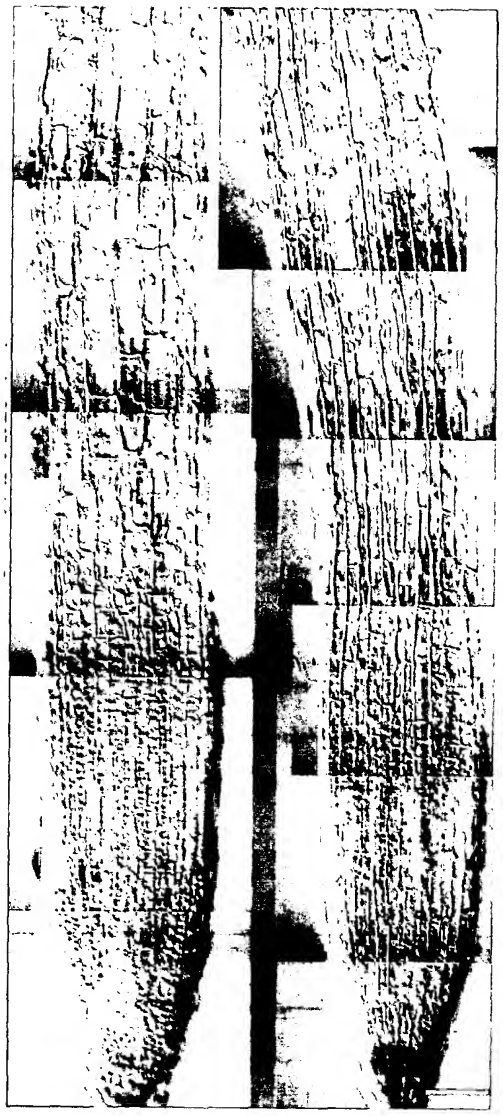

FIG. 14

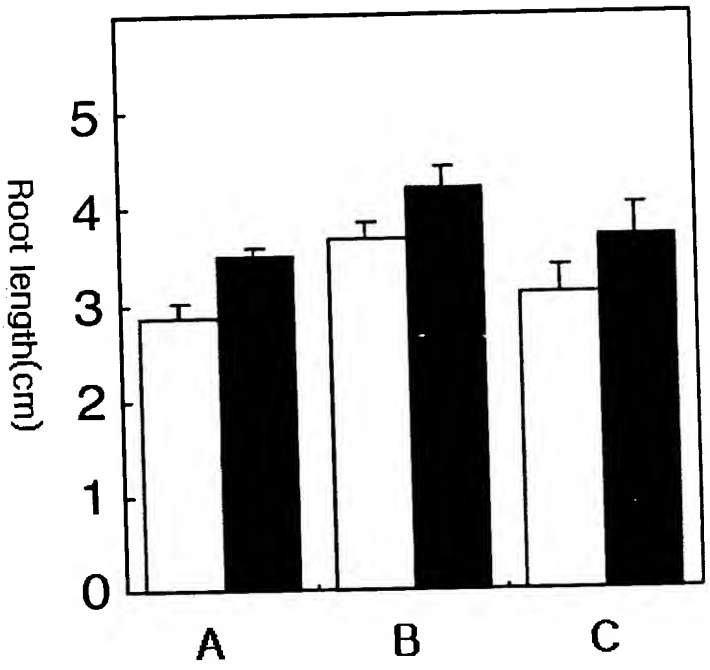
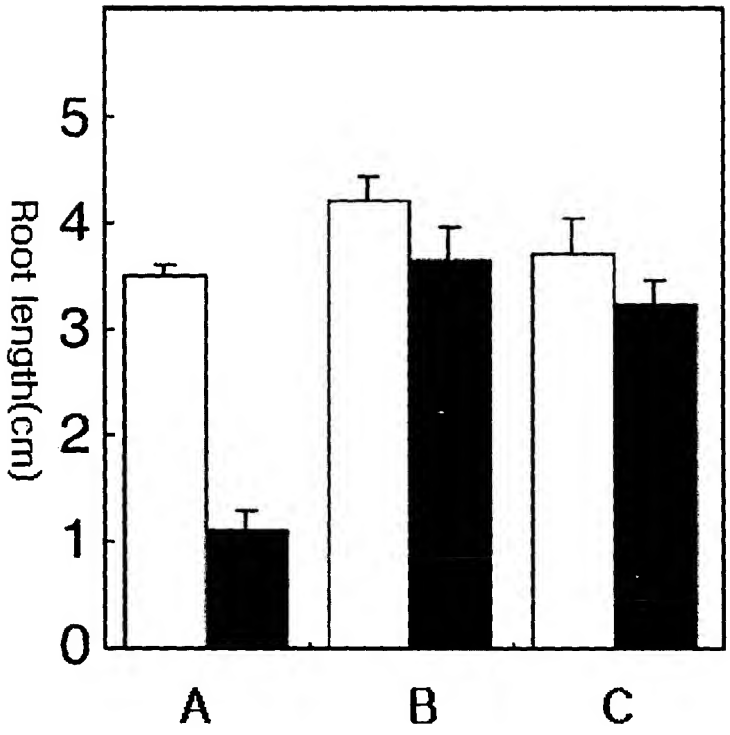
FIG. 15